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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,841	04/15/2004	Arjang Fartash	200312702-1	9435

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EXAMINER	
LAVILLA, MICHAEL E	
ART UNIT	**PAPER NUMBER**
1794	

NOTIFICATION DATE	DELIVERY MODE
01/03/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/825,841	FARTASH, ARJANG	
	Examiner	Art Unit	
	Michael La Villa	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2007 and 28 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53 and 57-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *49* is/are allowed.

6)☒ Claim(s) *1, 3-10, 15, 19-26, 29-35, 40, 41, 44, 50, 57, 60, and 61* is/are rejected.

7)☒ Claim(s) *2,11-14,16-18,27,28,36-39,42,43,45-48,51-53,58 and 59* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1. In view of the After Final Amendment filed on 24 May 2007 and the Appeal Brief filed on 28 September 2007, PROSECUTION IS HEREBY REOPENED. New rejections are set forth below. Newly identified reference to Morita USPN 5,274,482 warrants rejections as set forth below.
2. To avoid abandonment of the application, appellant must exercise one of the following two options:

   (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

   (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.
3. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

5. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding Claim 22, the self-claim dependency renders the claim indefinite. Applicant has explained that the claim properly should depend from Claim 21. Should applicant amend Claim 22 in this manner, the rejection would be withdrawn.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

9. A person shall be entitled to a patent unless –

10. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 3-10, 15, 19-22, 25, 26, 40, 44, 50, 57, 60, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Morita et al. USPN 5,274,482. Morita et al. teaches a tantalum structure of a matrix array substrate comprised of a MIM element having a continuous Ta layer comprised of contiguous bcc (17b) and non-bcc (17a) portions. These portions are formed on different layers. The alpha form is disposed on ITO (14) and the beta form is disposed on alkali

protection film which is disposed on glass (10). The ITO layer is formed by sputter deposition. Morita et al. characterizes the ITO as a bcc-phase-tantalum forming region (col. 3, lines 35-52). The ITO is disposed over alkali-protection film, which is the second layer. The non-bcc portion of the Ta layer is etched. Voltage bias is applied in making structure of Morita. These structures are described as being used in LCDs which have what can be called chamber layers to form the LCD device, and such layers must be formed. See Morita et al. (col. 3, line 16 through col. 8, line 2; Figures 2-5; and Claims 1-12).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 5, 19, 20, 24, and 29-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. USPN 5,274,482. Morita et al. teaches a

tantalum structure of a matrix array substrate comprised of a MIM element having a continuous Ta layer comprised of contiguous bcc (17b) and non-bcc (17a) portions. These portions are formed on different layers. The alpha form is disposed on ITO and the beta form is disposed on alkali protection film which is disposed on glass. The ITO layer is formed by sputter deposition. Morita et al. characterizes the ITO as a bcc-phase-tantalum forming region, and the ITO is disposed over alkali-protection film, which is the second layer. The non-bcc portion of the Ta layer is etched. Voltage bias is applied in making structure of Morita. See Morita et al. (col. 3, line 16 through col. 8, line 2; Figures 2-5; and Claims 1-12). With respect to Claims 5, 19, 34, and 35, Morita may not teach forming the alkali protection film and/or glass substrate. It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate such a film on a glass substrate were the glass substrate to lack such a film or to form the glass substrate and film were the starting material of Morita desired and otherwise unavailable since Morita suggests that Morita's starting materials are effective. The resulting non-conductive alkali protective film would be expected to have inherent dielectric properties. With respect to Claim 24, Morita may not teach the claimed plasma etching regime, but teaches a type of plasma etching regime. It would have been obvious to one of ordinary skill in the art at the time of the invention to use any conventional plasma etching regime that is effective. Regarding Claims 29-33, it would have been obvious to one of ordinary skill in the art at the time of the invention to clean and/or pre-clean surfaces to be

subsequently treated and/or coated by any conventional technique, including by the claimed conventional techniques.

Allowable Subject Matter

15. Claim 49 is allowable

16. Claims 2, 11-14, 16-18, 27, 28, 36-39, 42, 43, 45-48, 51-53, 58, and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Claim 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

18. The subject matter of Claims 2, 11-14, 16-18, 23, 27, 28, 36-39, 42, 43, 45-49, 51-53, 58, and 59 is allowable. The limitations set forth in these claims relate to structures and compositions that are not taught or suggested by the reviewed prior art.

Response to Amendment

19. Applicant's amendments and arguments, as set forth in the After Final Amendment of 24 May 2007, and arguments, as set forth in the Appeal Brief of 28 September 2007, are satisfactory for overcoming the various rejections set forth in the Office Action mailed on 28 February 2007. As such, the After Final Amendment of 24 May 2007 has been entered, and those rejections are therefore withdrawn. Withdrawal of rejections over Seet USPA 2004/0131878 is

warranted in view of applicant's argued for and reasonable interpretation of the claims which precludes the claims from reading on the methods and structures of Seet.

20. Applicant was contacted on 21 December 2007 in order to place the application in condition for allowance prior to the Examiner being aware of Morita.

21. Consideration of Morita has resulted in withdrawal of indication of allowable subject matter of certain claims previously indicated as having allowable subject matter in the Office Action mailed on 28 February 2007.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael La Villa
21 December 2007

MICHAEL E. LAVILLA PH.D.
PRIMARY EXAMINER

/Rena L. Dye/

Rena L. Dye, SPE Art Unit 1794

21 December 2007